

PLAYING WITH TRANSGRESSORS: PRESCHOOLERS CONSIDER
REPUTATION AND SAFETY WHEN CHOOSING PLAYMATES

by

Shauna R. Joyner

Honors Thesis

Appalachian State University

Submitted to the Department of Psychology

and the Honors College

in partial fulfillment of the requirements for the degree of

Bachelor of Science

December, 2015

Approved by:

Robyn Kondrad, Ph.D., Thesis Director

Ellen Carpenter, Ph.D., Second Reader

Lisa Emery, Ph.D., Psychology Honors Director

Leslie Sargent Jones, Ph.D., Director, The Honors College

Playing with Transgressors: Preschoolers Consider
Reputation and Safety When Choosing Playmates

Shauna R. Joyner

Appalachian State University

Abstract

Preschoolers think physically mean peers are unlikely to be helpful and deserve to be punished and excluded from play (Kondrad & Jaswal, 2013). Even after transgressors are punished, children are unwilling to play with them. There is an adaptive explanation for this caution: children who recognize and avoid historically mean people are protected from potential physical harm. Yet, children also claim that a transgressor will not misbehave again once punished, suggesting that children believe physically mean peers are rehabilitated by punishment. Thus, safety concerns may not be the only factor children consider when choosing playmates. One alternative is that preschoolers worry about their reputation if other kids see them interacting with a known transgressor. The present study examined whether concerns about safety or reputation play a stronger role in 5-year-olds' decisions about playmates. Preschoolers heard 4 stories about peers who physically harmed someone and were punished. Half of the preschoolers learned that no one else knew about the transgressors' behavior whereas the other half learned that everyone knew. Preschoolers then rated on a 5-point Likert scale how much they would like to play with the transgressor if the interaction was public or if it was private. The children also completed several Theory of Mind tasks. Contrary to expectations, children's willingness to play with transgressors was equally affected by safety and social concerns and was not correlated with Theory of Mind. These results suggest that children consider information relevant to safety and their own reputation when making decisions about playmates.

Permission is granted to Appalachian State University and the Department of Psychology to display and provide access to this thesis for appropriate academic and research purposes.

Playing With Transgressors: Preschoolers Consider Reputation and Safety When Choosing Playmates

Successfully navigating social interactions within a group requires an understanding of and compliance with group moral and conventional norms (Smetana, 2006). Infants as young as three months can detect those who violate such social rules (Hamlin, Wynn, & Bloom, 2010) and expect violators to pay consequences (Sloane, Baillargeon, & Premack, 2012). A large body of research shows that by preschool, children differentiate between types of violations – they believe individuals who violate moral rules (e.g., acts that violate the rights or welfare of others, such as hitting) are deserving of more serious consequences compared to those who break conventional rules (e.g., rules set by society that are changeable relative to context, such as raising one's hand to speak; Killen, Breton, Ferguson, & Handler, 1994; Nucci & Turiel, 1978; Smetana, 1981; Smetana, Kelly & Twentyman, 1984). One far-reaching consequence of preschoolers' negative judgments about violators is social exclusion from the peer group. Exclusion results in fewer opportunities to practice positive social skills and is linked to an increase in bullying behaviors down the road (Boulton & Smith, 1994; Hoza, 2007). The present study explores two reasons for why children avoid peers who misbehave. The first is because they might be concerned for their own safety. The second is because they might be concerned about tarnishing their own reputation by associating with known bullies.

Recent evidence shows that children's negative judgments about peers who misbehave are malleable. In Kondrad and Jaswal (2013), five-year-olds heard two stories in which a character was physically mean (e.g., hit another child). Half of the children learned that the transgressor was punished, and the other half learned that the transgressor was not

punished (i.e., because the teacher got distracted and forgot). Children rated the punished transgressors as more likely to help and less likely to recidivate than unpunished transgressors. Interestingly, children were unwilling to play with these transgressors, even after they met with their rehabilitative punishment. (Kondrad & Jaswal, 2013). Why might children avoid supposedly rehabilitated transgressors?

One reason that preschoolers might be cautious about associating with physically mean peers is because of lingering concerns for their own safety. Children in Kondrad and Jaswal (2013) were asked if they thought the transgressor would repeat his/her transgression again. This phrasing leaves open the possibility that children thought a punished transgressor might not repeat the same offense, but might do something else: a hitter-turned-kicker, for instance. Additionally, children may have thought the punished transgressors unlikely to repeat their offenses *immediately*, but may have imagined the scenario of playing with them in a more distant future.

Protection-from-harm is a common explanation for a bias throughout the lifespan to detect threats like snakes in the environment more quickly than neutral stimuli like flowers (e.g., LoBue & DeLoache, 2010), and to remember more details about threatening over non-threatening stimuli (e.g., Baltazar, Shutts, & Kinzler, 2012). Researchers suggest that this bias is adaptive in the social domain because knowing whom to avoid is arguably more important to survival than knowing who is nice; “nice” is the default (LeDoux, 2009). For instance, in one study adults were asked to detect a threatening face amidst a background of happy and neutral faces or to detect a happy or neutral face from a background of threatening ones (Ohman, Lundqvist, & Esteves, 2001). Adults were quicker to detect threatening faces,

suggesting that negatively valenced social stimuli are privileged compared to positive or neutral stimuli, and the reason for this bias is to avoid harm.

Several studies with preschoolers also show that more attention is allocated towards threatening than non-threatening social stimuli. In one study, four-year-olds saw headshots of eight children and were told who was nice and what nice thing they did (e.g., shared), and who was mean and what mean thing they did (e.g., stole cookies). The four-year-olds were then shown the faces in a different order than they had originally been presented and asked to recall whether each child had been nice or mean. Although the children were able to recognize all faces above what would be expected by chance, they were especially good at recognizing those who had been mean (Baltazar et al., 2012, Study 1). Furthermore, when four-year-olds were asked to choose what each character had done from two options, they were more accurate when choosing mean actions (Baltazar et al., 2012, Study 2). In a similar study, four-year-olds were again shown eight faces and were told whether they were nice or mean. This time, however, the recognition task involved the children seeing the faces in the same order, but paired with an unfamiliar face. When asked which face they had seen before, the children were again better at recognizing mean faces (Kinlzer & Shutts, 2008).

The same results were obtained with older children in a more challenging task. Five-year-olds viewed 12 headshots of children and learned how each had behaved. Four of them were nice, four were physically harmful, and four were psychologically harmful. Physically harmful behaviors were rated in earlier studies as more serious than psychologically harmful ones (Kondrad & Jaswal, 2013, Studies 1 and 2). Children recalled more details about the physically harmful behaviors than either the psychologically harmful or nice behaviors (Study 5), suggesting that children allocate their attention according to the greatest perceived

threat. In a follow-up study, five-year-olds were simply read a list containing physically and psychologically mean and nice words (e.g., hit, tease, share). Children recalled mostly physically mean words (Study 6), once again suggesting that children pay the most attention to the most threatening stimuli.

Infants also display a preference to avoid mean characters. In one study researchers habituated three-month-olds to two events in which a puppet was trying to reach the top of a hill (Hamlin, Wynn, & Bloom, 2010, Study 1). In one event the puppet was helped to the top of the hill by a second “helper” puppet; in the other event the puppet was prevented from reaching the top of the hill by a second “hinderer” puppet. After the infants were habituated to both events, the helper and hinderer puppets were displayed simultaneously and the amount of time the infants spent looking at each puppet was recorded. Infants spent less time looking the hinderer puppet, suggesting that they wanted to avoid it. Once again, the researchers argued that infants displayed a bias to avoid socially threatening stimuli because such a bias could help them survive. It is possible that this mechanism is at work when children are making decisions about playing with peers who have misbehaved.

There is an alternative explanation for why people are good at detecting, remembering details about, and subsequently avoiding social threats: if you know who to avoid, then you might also reduce your risk of guilt-by-association, protect your reputation, and reduce your own risk of social exclusion. Peers might negatively evaluate associates of known bullies, even if those associates had themselves not misbehaved. There is good reason for people to make assumptions about someone based on their associates – people actually “catch” the behaviors of their associates – this is a concept known as social contagion (Crandall, 1988) and has been observed in children as young as three years (Dishion &

Tipsord, 2011). For example, in one study three- to seven-year-olds' aggressive behaviors increased when they interacted with aggressive peers (Hanish, Martin, Fabes, Leonard, & Herzog, 2005). In other words, if a neutral child tends to choose deviant playmates, it is likely that at some point that child will be deviant too. To avoid negative evaluations and the risk of social exclusion by one's peers, it matters not only how one behaves, but also with whom one chooses to befriend. This social implication of choosing playmates may be even more important than concerns about one's own safety. Returning to the question of why preschoolers avoid punished, rehabilitated transgressors in Kondrad & Jaswal (2013), it might be because they do not want to risk tarnishing their reputation even if they are not concerned about being harmed by the transgressor.

Similarly, Baltazar et al. (2012), argued that preschoolers remembered details about mean characters better than nice ones because they were protecting themselves from potential personal harm (e.g., avoid the cookie-stealer because she might steal my cookies too). Again, an alternative explanation for preschoolers' bias is that they kept careful track of violators to protect themselves from guilt-by-association (e.g., avoid the cookie-stealer because I do not want other kids to think I am a cookie-stealer like she is). It makes sense that children would be worried about tarnishing their reputations, because the feeling of belonging is an important social drive (McMillan & Chavis, 1986). Research on group membership has shown that four- to 11-year-olds prefer playing with in-group over out-group members (Abrams, Rutland, & Cameron, 2003; Bigler, Jones, & Lobliner, 1997; Killen, 2007). If children see an in-group member playing with someone who has been excluded because of past behavior, then this may lead that in-group member to be re-categorized as an out-group

member. After all, why would someone play with an outsider unless he or she was an outsider too?

Reasoning about the social implications of associating with known transgressors would require a good deal of sophisticated mental gymnastics. Children would need to think about the mental processing that other kids might do if they saw someone transgress: their peers might judge the transgressor and transgression negatively, remember what they had done later, and make associations between that individual and his or her associates. Research suggests that children as young as four years (e.g., Banerjee, Bennett, & Luke, 2012; Killen, 2007) have some understanding of how relationships can be influenced by peer interactions, and certainly by seven years children have a sophisticated understanding of the importance of self-presentation (Banerjee, 2002; Darby & Schlenker, 1982).

Children understand that breaking social contracts puts their reputation at risk (Banerjee, Bennett, & Luke, 2010b). For instance, when asked to think of a time they made another child upset, seven- to 10-year-olds typically generated examples of behaviors that violated others' rights (e.g., pushing someone), and predicted that peers would evaluate them negatively (e.g., s/he is not a nice person) for such transgressions. Children might extend this understanding about the impact of behavior on peer evaluations to situations in which they may not be directly involved in the misbehavior. That is, children may show the same concern about tarnishing their reputation if they associate with other kids who misbehave.

Younger children also have self-presentational motives (e.g., they'll think I'm nice) when considering what they might do or say after committing a moral transgression. For instance, four- to six-year-olds were asked to imagine themselves as the transgressor in stories read to them and afterwards to indicate how they would feel, what they would do or

say, and why. When informed that classmates would learn from a videotape how they answered, four- to six-year-olds referred to social emotions (e.g., embarrassed, guilty) as likely outcomes (Banerjee et al., 2012, Study 2). Importantly, it was the fact that their teachers and classmates would know their responses that led preschoolers to think about the impact of moral transgressions on their reputation: when they were not prompted to consider their reputation, they were less likely to do so (Banerjee et al., 2012, Study 1).

Further, when the children were told to imagine that they were a transgressor who was made fun of or ridiculed, they were even more likely to consider what their peers might think when asked how they would feel and why, as well as what they would do and why (Banerjee et al., 2012, Study 3). Punishment of transgressors (as in Konrad & Jaswal, 2013) could serve the same function as did the ridicule by highlighting the social implications of the misbehavior to other children. Thus, for preschool-aged children, making the social context explicit (e.g., peers will know you are playing with a transgressor or they will not know), could lead them to be more or less willing to associate with a known transgressor. If this were the case, it would indicate that social context may be more important than concerns about safety.

In another demonstration of young children's understanding of self-presentation, six-year-olds were shown to consider how others might view them when determining how best to earn their peers' approval (Banerjee, 2002). Children were told a story in which a child met either new classmates or new adult neighbors. After being told that the story characters wanted the audience to think they were nice, children were asked to choose which self-descriptions the characters should provide to the audience: those relating to academic skills, athletic skills, or interpersonal skills. Children understood that what the characters ought to

say depended on qualities of the audience. For example, if the character was trying to impress someone who liked clever people, then the children suggested that the character ought to highlight their own academic achievements rather than athletic or interpersonal abilities. In other words, young children can provide advice about how best to manipulate the way someone else might judge a peer, which suggests that children think about factors that can influence someone's reputation.

In summary, children as young as four years know that how they behave influences how their peers' evaluate them. By at least six years of age children use appropriate behavioral strategies to gain their peers' approval, and seven-year-olds expect negative evaluations from their peers when they violate another person's rights. It is therefore reasonable to think that children might believe that peers generalize their negative judgments about a deviant child to his or her associates. Avoiding these negative judgments is a powerful motivator because negative judgments are correlated with social exclusion (e.g., Killen, 2007; Schmidt, Rakoczy, & Tomasello, 2012). Thus, children might be particularly careful to keep track of peers who are judged negatively in order to avoid "catching" their negative evaluations and thereby reducing the risk of being socially excluded themselves.

As noted earlier, the guilt-by-association hypothesis requires sophisticated mental thinking. Children would have to realize that their peers might not like the transgressor and be able to understand why. In order to conclude that they ought to avoid transgressors, children would then need the foresight to know that others who play with the bully might be seen as just as bad. This kind of metacognition is known in the developmental world as Theory of Mind (ToM) – the ability to infer what others are thinking (Chalik, Rivera, &

Rhodes, 2014; Watson, Nixon, Wilson, & Capage, 1999; Wellman, 2004). In the present study, we consider whether ToM might influence whether children consider reputation as a factor in choosing playmates.

Children as young as three and four years can use information about mental states to predict someone's actions, even if these two qualities conflict (Chalik, Rivera, & Rhodes, 2014). For example, in one study preschoolers learned that a character belonged to the Red group but was mad at a fellow Red-group member and was not mad at anyone in the Blue group. When told that this character hit someone, preschoolers could determine that the victim was the Red group member rather than the out-group member (Chalik et al., 2014). Similarly, children with high scores on Theory of Mind tasks tend to have higher social status and be liked by more peers (Slaughter, Dennis, & Pritchard, 2002). Because children who score high on ToM can use information about others' mental states and have high social status, they may have an advantage in being able to predict what others might think about "out-group" members (or, in the study proposed here, the transgressor). High-scoring children may be better able than low-scoring children to consider the social implications of associating with transgressors.

Of particular interest in the present study was children's performance on the Real-Apparent Emotions ToM task (Harris, Donnelly, Guz, & Pitt-Watson, 1986). This task requires children to use information about a character's situation and desires to understand why the character chooses to express an emotion that is contrary to what s/he actually feels. For instance, in one story the character was trying to hide a positive emotion (thinking s/he would win a game of cards) and in the other, the character was trying to hide a negative emotion (having a tummy ache). Children were asked how the character "*really* felt on the

inside” and how s/he “looked on her face”. It is possible that children use the kind of logic required to pass this task in order to decide how much willingness to play with the transgressor they want to portray. In other words, a child might actually be willing to play with a transgressor, but act unwilling in front of others who saw the transgression.

Another task of interest was the Belief-Emotion task, which measured children’s understanding that others can have beliefs that are untrue. If children can understand this concept, then they may be able to apply it to the stories they hear in the current study. For example, if no one else sees a transgression, children who pass this task should be able to understand that the other kids might think the bully is nice, even though they themselves would know otherwise. On the other hand, if everyone else saw the transgression, children who pass this task should be able to understand that if they played with the bully, the other kids might think (perhaps falsely) that they would start being mean, too.

Children who answer the questions in the Real-Apparent Emotions and Belief-Emotion tasks correctly may also be more likely to take into account how associating with known transgressors might negatively impact their reputation. That is, if other kids knew about their peers’ deviant behavior, then children with high ToM scores might be even less willing to play with the transgressor than children with low ToM scores because the high-scoring children would be more concerned about protecting their reputation.

The primary goal of the present study is to explore why preschoolers are not willing to play with peers who have been physically mean in the past, even after being punished for the transgression. Five-year-olds were selected in part as a follow-up to Kondrad and Jaswal (2013), but also because by this age, they have relatively sophisticated ToM abilities and understand basic concepts about the social implications of one’s reputation. Children heard

four stories in which a character was physically mean and was punished and then either learned that all the kids in the class knew about the transgression or that none of the kids knew about it. Afterwards, children were asked to rate their willingness to play with each transgressor under two circumstances: a) public: when all the other kids in the class could see the interaction or b) private: when none of them could.

If reputation is the main concern, then children should be more willing to play with transgressors in private than in public when everyone knows about the transgression; a preference for public interactions with known transgressors would suggest that safety concerns are most important. Finally, if children are equally (un)willing to play with a known transgressor in public or in private, then this outcome would also suggest that concerns about personal safety are what is important in choosing playmates. If the peers do not know about the transgression, then guilt-by-association would not be possible and preschoolers should be equally happy to play with the transgressor regardless of the public or private nature of the association. A second aim was to explore the role of ToM in children's willingness to play with transgressors. Higher ToM scores may be negatively correlated with willingness; children with high scores might be even more likely to respond in a way consistent with concerns about reputation than children with low scores.

Method

Participants. Thirty-two five-year-olds ($M = 5$ years; 4 months; range = 5; 0 – 5;11; 16 girls) participated. Children in this study were primarily white, from middle-class backgrounds, and were recruited from the local community.

Design. This study was a mixed factors design, with one between-subjects and one within-subjects factor. The between-subjects factor was whether or not there were witnesses to the transgressions described in the stories. There were 16 children in the Known Transgressor condition ($M = 5$ years; 3 months; range = 5;0 – 5;11; 8 girls) and 16 children in the Unknown Transgressor condition ($M = 5$ years; 5 months; range = 5;0 – 5;11; 8 girls). The within-subjects factor was whether the participant's interaction with the transgressor was public (Public Interaction) or private (Private Interaction).

Materials. All stories were presented via PowerPoint presentations on a laptop. The scale was printed on 8½" x 11" paper and consisted of five faces in a horizontal line that gradually progressed from a frowning face (indicating no desire to play) on the left to a smiling face (indicating a very strong desire to play) on the right. Audio and video of each session was recorded using a video camera. The materials for the Theory of Mind tasks included a Froot Loops™ box, a Band-Aids™ box, a small unmarked container, rocks, Froot Loops™, and a sponge, as well as three stick figure puppets made with popsicle sticks, googly eyes and string.

Procedure. Information about IRB approval and the consent forms used can be found in Appendix C and Appendix D, respectively. The five-year-olds were tested individually in the laboratory or in a quiet room in a preschool in a single 10-minute session. The researcher sat beside the children at a small table and made the children feel comfortable by asking three

practice questions about the child's name, age, and sex. The researcher next taught the children how to use the Likert-based scale that they would later use to answer questions. During the testing session children heard four stories, answered questions about the stories with the Likert scale, and then completed several theory of mind (ToM) tasks (Wellman & Liu, 2004).

After the warm-up, the researcher trained children to use an adapted version of a five-point Likert-based pain scale (Appendix A; Tomlinson, von Baeyer, Stinson, & Sung, 2010). The scale was adapted from the Wong Baker Faces Pain Rating Scale (WBFPRS), which has been validated as a way for children to rate their pain and is preferred by children to other face rating scales (Tomlinson, von Baeyer, Stinson, & Sung, 2010). This scale has been used successfully in past research on children's judgments about transgressions (Kondrad and Jaswal, 2013).

In the present study, the researcher explained to the children that the scale could be used "to show how much you want to play with someone," and expressed what each face meant. The frowning face on the far left meant that the child did not want to play with the story characters at all (and was scored as a 0); the next face, whose frown was less intense, meant that the child did not want to play, but might if s/he really had to (and was scored as a 1). The faces progressed in this way until the smiling face on the far right, which meant the child wanted to play with the character the very most (and was scored as a 4).

To practice using the scale, the researcher asked the children to point to the face that would show how much they would want to play with their best friend, a shark, and someone who was their friend, but not their best friend. Children met criteria for using the scale if they were most willing to play with their best friend and least willing to play with a shark. All

children succeeded, except one who said she would like to play with her best friend the most, would be okay playing or not playing with a shark, and did not want to play with a friend.

The researcher next told the children that they would hear several stories about how some same-aged peers behaved while they were in school, and that they could use the scale to answer some questions about the characters in the stories. The children heard four stories, one at a time, set in a school setting, in which a transgressor, whose gender matched the child's, physically harmed another peer and was then put into time-out as a punishment by the teacher. Because children tend to rate negative traits as more common among the opposite sex than that of their own sex (Powlishta, 1995), and because boys are expected to be physically aggressive than girls (girls are expected to be more relationally aggressive; Crick, Casas & Mosher, 1997), girls heard stories with female transgressors and boys heard stories about male transgressors.

Each story featured a different transgression (see Appendix A for sample stories: hitting, kicking, pinching, or tripping) and was accompanied by a cartoon image of the transgressor's actions. The 16 children in the Unknown Transgressor condition learned that "none of the other kids saw what happened." In contrast, the 16 children in the Known Transgressor condition heard the opposite: "all of the other kids saw what happened." In other words, half the children knew that their peers did not know that the bully was in fact a bully: they did not see the transgression occur or see the transgressor get punished for it.

After hearing one of the stories, all of the children were asked to use the scale to rate how much they would want to play with the transgressor if a) "all the other kids could see who you were playing with" or b) "none of the other kids could see who you were playing with". This procedure was repeated for each of the four stories and the stories always

occurred in the same order (hitting, kicking, pinching, tripping). The order of the questions was counterbalanced so that half the children in each condition were asked to imagine first that *none* of the other children could see who they were playing with for the first and fourth stories, and the other half were told to imagine this first for the second and third stories. Children were debriefed after the fourth story. The researcher explained that all the transgressors apologized for their actions and that “at the end of the day, everyone was friends”. This was done so that the children would not be left with negative feelings about the stories.

Finally, children completed a series of theory of mind tasks (see Appendix B). All children started with a task of medium difficulty. Which task they did next depended on whether they passed the first task or not. If they did, they went on to a higher-difficulty task. If they did not, they went on to an easier task. This is the standard procedure for administering these tasks and determining an overall ToM score.

The first task is known as the Real-Apparent Emotions task (Harris et al., 1986). The researcher told the children about a character (whose gender matched each child’s) who was trying to hide either a positive emotion (thinking s/he was going to win a card game) or a negative emotion (having a “tummy ache”). After each story, the researcher asked three comprehension questions to make sure the children understood the story. Children were then asked two test questions: how the character “really feels on the inside” and how s/he “looks on his/her face,” with the options of “happy,” “sad,” and “just OK”. Because the characters were trying to hide their emotions, their faces would have reflected the opposite of what they were feeling. For example, if the character thought s/he was going to win a game of cards, but did not want the other players to know, s/he would have really felt happy on the inside,

but may have looked sad or just okay on his/her face. The story in which the character hid a positive emotion was always told first, but the order in which the test questions were asked was counterbalanced. Half of the children were asked how the character really felt on the inside first, and the other half was asked how the character looked on his/her face first.

Children had to answer all test questions correctly to receive a passing score.

If children passed the Real-Apparent Emotions task, they next completed a Second-Order False Belief task (Sullivan, Zaitchik, & Tager-Flusberg, 1994). Five-year-olds tend to find this task to be more difficult than Real-Apparent Emotions (Wellman & Liu, 2004), and it requires an understanding of what one person thinks another person is thinking (i.e., “he thinks that she thinks...”). In this task, children were told that two characters, Mary and John, were playing in a park when the ice cream man came. The ice cream man tells both characters at the same time that he will be in the park all day. Later, however, Mary and John find out separately that the ice cream man went to the school; neither Mary nor John knows that the other knows where the ice cream man is. When John goes looking for Mary, who went to get an ice cream cone, children are asked where he will look first for her: the park or the school (with the correct answer being the park). The researcher asked comprehension questions at regular intervals throughout the story.

If children failed the Real-Apparent Emotions task, they next completed a series of other ToM tasks that decreased in difficulty. They stopped as soon as they passed a task. The order of these tasks is the following: Belief-Emotion, Explicit False Belief, Content False Belief, and Knowledge Access (Wellman and Liu, 2004). The sex of characters used for the ToM tasks were always matched for that of the children; the only exception was the Second-

Order False Belief task, which included two characters: one boy and one girl. The procedures for all of the mentioned ToM tasks are described in detail in the Appendices.

At the end of the study, children received a small prize (beach ball, rubber ducky, etc.) and were thanked for participating. The researcher coded the responses during the session. A second researcher coded 50% of the videos a second time, resulting in 100% agreement on the 8 story questions and across participants on the ToM tasks.

Results

Preliminary analyses revealed no effects or interactions involving trial, gender, or counterbalancing order, so subsequent analyses were collapsed across those factors.

Story Trials. For each of four stories, children indicated how willing they were to play with the transgressor in public and in private. Figure 1 shows, on average, how much children wanted to play with a transgressor in public and in private, as a function of whether all their peers knew or did not know about the earlier transgression. A mixed methods ANOVA with transgressor status (Known Transgressor vs. Unknown Transgressor) as the between-subjects factor and interaction type (Public vs. Private) as the within-subjects factor revealed that there were no interactions or main effects, F 's < 1.21 , p 's $> .28$. Neither transgression status nor interaction type affected children's willingness to play with the characters. In other words, children were equally unwilling (means were below 3 on a scale of 0-4) to play with a punished transgressor regardless of whether other kids knew he had misbehaved and regardless of whether other kids knew about the interaction.

First trial data was analyzed separately because children were least likely to be fatigued and most likely to be paying close attention the first time they were asked to respond to a story. For children in the Transgression Unknown condition, a paired samples t-test revealed a difference in preference for public compared to private interactions. They were somewhat more willing to play publicly ($M = 2.13$, $SD = 1.63$) than privately ($M = 1.13$, $SD = 1.26$), which was marginally significant, $t(15) = 1.97$, $p = .07$, $d = .69$. This finding was surprising. It suggests that when choosing a playmate, children do consider how others might judge this association. Children think playing publicly with someone is not damaging to their reputation, but only when they know that all the other kids are in the dark about the

playmate's past.

Theory of Mind. A single score reflecting children's theory of mind was calculated according to the tasks each child passed. Scores ranged from 0 to 6. A score of 6 was earned if children passed the Second-Order False Belief task, the most difficult. A score of 5 was earned if children passed the Real-Apparent Emotions task. Most 5-year-olds pass the first order false belief task (Belief-Emotions; a score of 4) and all remaining tasks. Therefore, the most variation in pass-fail rates was expected for the Real-Apparent Emotions task (Harris, Donnelly, Guz, & Pitt-Watson, 1986).

As expected, 60% of children (19 of 32) passed the Belief-Emotions task. Nine of them were in the Known Transgression condition, and ten were in the Unknown Transgressor condition. Also as expected, only one child (in the Transgression Known condition) earned a 6. In the Real-Apparent Emotions task, where we expected about 30% of children to pass (Wellman & Liu, 2004), only 16% did so (four in the Transgression Unknown and one in the Transgression Known condition).

Overall, there were no correlations between Theory of Mind scores and children's ratings for either public or private play, r 's between $-.04$ and $.37$, p 's $> .16$. This was true even after taking into account only the children who received a score of four or higher. Calculations for just those children who scored five or higher could not be completed due to small sample size. However, there was a significant positive relationship between children's ratings in public and private settings for those 12 children who failed the Real-Apparent Emotions task (received a score four or lower), but only in the Unknown Transgressor condition, $r = .60$, $p = .04$. When none of their peers knew that the potential playmate had a history of misbehavior, then children with lower theory of mind scores tended to answer the

willingness to play questions in the same way across the Public and Private Interaction conditions. In other words, for children with low theory of mind scores, willingness to play with transgressors was not affected by whether or not others could see them playing if no one else knew about the transgression. Children with low theory of mind scores in the Known Transgressor condition, however, responded differently depending on if others could see them playing with the transgressors or not.

Discussion

Results replicate previous work showing that children are hesitant to play with transgressors even though they had been punished for their misconduct. Surprisingly, willingness to play did not depend on transgression status or play type; children showed little interest in playing with the transgressor no matter what other kids might know or see. However, for the subset of children who had low theory of mind scores, willingness to play in public predicted willingness to play in private, but only when peers did not know about the transgressor's history.

Punishment is thought to be an effective way to rehabilitate children who misbehave. If this were true, then children ought to be just as happy to play with a transgressor who has paid her dues as they are with another peer who has never misbehaved. The present study and earlier work (Kondrad & Jaswal, 2013) find that this is not the case – children clearly do not want to play with a transgressor, punished or otherwise. This is an important finding because it shows that children who are physically mean to a peer *just once* are at risk for being socially excluded, and exclusion is correlated with later clinical diagnoses of conduct disorder and bullying behaviors (Dodge, Lansford, Burks, Bates, Pettit et al., 2003). Therefore, it is critical for poorly behaved children's development to find effective ways to give them a "second chance". Future research should address how to restore children's trust in someone they know has misbehaved. Perhaps seeing the child behave in positive ways or hearing that child apologize would help.

In fact, apologies do seem to have a rehabilitative function. Four- to nine-year-olds forgive transgressors to a greater extent when they take responsibility for their actions by apologizing and a less extent for an excuse (e.g., "I didn't mean to really hit him/her. I was

only pretending”; Banerjee et al., 2010a). More specifically, a recent study suggests that apologies restore relationships, but not hurt feelings after minor transgressions (e.g., knocking down someone’s tower that they worked hard to build, and then apologizing; Drell & Jaswal, 2015). Six-year-olds who were apologized to shared more later with the offender than when the offender did not apologize.

Similarly, transgressors’ reputation prior to misbehaving and their remorse about it afterwards plays a role in how they are judged (Darby & Schlenker, 1982, 1989). For example, seven- to 10-year-olds judged “normally friendly” and remorseful characters who broke someone’s bicycle as less deserving of punishment compared to characters described as “normally mean and not sorry” for breaking the bicycle (Darby & Schlenker, 1989). Of course, none of these studies ask whether the child would be willing to play with that individual once they apologized. It could be that punishment and apologies both function to rehabilitate the offender to some extent, but not enough to want to engage in extended play with them.

The primary aim of the present study was to explore why children show such reluctance to play with transgressors. The expectation was that children would be more willing to play in private with a punished transgressor whom other kids knew about than they would in public because private play would not harm their reputation, and they are not concerned about recidivism. This hypothesis was not supported. Instead, children overall were equally unwilling to play with a known or an unknown transgressor, and whether they played publicly or privately also did not matter. One way to interpret this result is that children’s choice of playmate was not influenced by what their peers knew about the potential playmate’s past, or by who would see them playing together. An alternative

explanation is that they consider both factors equally.

Theory of mind ability was not correlated with children's ratings overall. There was a puzzling relationship between ratings for public and private play for the children who failed the Real-Apparent emotions task, but not in the expected condition. These children's willingness to play publicly predicted their willingness to play privately with a transgressor, but only when none of their peers had access to the transgressors' history. This finding suggests that whether peers know about the bully or not makes some difference to young children, but only for those children who are less good at perspective taking.

There are methodological artifacts that could have masked differences in children's willingness to play ratings between conditions. For example, children may have been primed to focus on the behavior rather than on the social context. The first thing children heard was the transgression, and the second thing children heard was who knew about it. Because these transgressions are considered to be quite serious among preschoolers (Kondrad & Jaswal, 2013), children's attention may have been diverted away from the information that came afterwards. Therefore, ratings about playing with the transgressor may have been similar between transgression status conditions because children did not weight the social information as much as they might have otherwise.

Another methodological limitation was how children interpreted what the experimenter meant when she stated that "all/none of the other kids saw what happened". Children might have interpreted this statement as referring both to the transgression and the punishment, just the transgression, or just the punishment. Previous work has shown that punishment serves a rehabilitative function, at least to a certain extent (Kondrad & Jaswal, 2013). If their peers only saw the transgression, but not the punishment, then children may

have reasoning that their peers would be more negative towards the transgressor than if they had known about the punishment. In this instance, it is possible that children would have then been more likely to weight how their association with the “unpunished” transgressor would impact their reputation.

A memory check would provide an assessment of whether children paid attention to and could recall the transgression status. A future study could emphasize the social context, perhaps by showing children pictures of all (or none) of the other kids in the class watching (or not) as the transgressor misbehaved, and pointing this information out explicitly right away (“Look, all/none of the other kids are on the playground watching. Let’s see what happens.”). Finally, punishment status could be manipulated to explore whether children are more likely to consider their reputation when the transgressor has been punished or not.

Children in this study were asked a vague question about playing with transgressors. Providing more specific details about the type of play might lead some children to be more willing to play with transgressors. For example, if a child who loves playing with blocks was told that the transgressor was playing with the blocks, that child might have been more willing to play with the transgressor than if the transgressor had been playing with puzzles (which the child liked less well). Does the motivation to play with particular toys trump concern about playing with a bully? One way to find out would be to ask children what their favorite way to play is before they hear the stories, and then ask them how much they want to play with the transgressor doing the activity they indicated. Of course, there could also be an interaction with the type of play and the type of transgression the bully committed. Block play provides a more tempting context for a bully who kicks to disrupt the play than puzzles. Thus, a child who likes block play may be more likely to avoid a kicker than they would a

pincher in that specific context.

Another way to interpret the results is that perhaps concern for their own safety and reputation influenced children's decisions about playmates equally. In the private interaction, children realized that they did not have to be concerned about their reputation, but the transgressor could still potentially misbehave. Children's ratings for this question may therefore reflect how concerned they might be about the transgressor recidivating. In the public interaction, children may have realized that they did not have to be concerned about safety, because it would be unlikely for the transgressor to repeat their offense in front of all those other people (safety in numbers). Children's ratings for this question may therefore reflect how much they are concerned about the social impact of their association. In other words, the ratings for public and private interactions could be the same because children may have considered just one factor at a time depending on the question asked.

Finally, children may avoid transgressors simply because they have been taught not to play with kids who have ever demonstrated bad behavior. One way to examine this hypothesis is to compare children's willingness to play with peers who did a mean thing on accident to one who did it on purpose. Children might judge these two characters differently, seeing the accidental action as a fluke that does not reflect the characters' disposition (he is still a nice boy because he did not intend to do that mean action). If so, then perhaps children would be more willing to play with a character who was accidentally mean than one who was purposefully so.

In the present study, gender of the participant and storybook character was matched because children tend to rate members of the opposite sex as more likely to have negative qualities than members of their own sex (Powlishta, 1995). However, results did not indicate

differences between boys' and girls' willingness to play with transgressors whether or not others knew about the transgression or whether their playing was public or private. It might be interesting to cross gender, so that girls hear about male characters and boys hear about female characters, possibly intensifying negative feelings about the transgressor. If either reputation or safety plays a larger role in determining whom children play with, magnifying the dislike of a transgressor might make this distinction more clear.

In summary, the reported study demonstrates that children are unwilling to play with kids who they know have misbehaved. Being punished for bad behavior, whether other kids know about the transgression, and where the interaction takes place does little to improve children's willingness to play with transgressors. There are many questions that these findings raise: How can transgressors be truly rehabilitated in the eyes of their peers? Under which circumstances do children consider social influences when choosing playmates, and when do they favor safety concerns? One thing is clear: by preschool, violating moral norms are serious offenses with robust consequences.

References

- Abrams, D., Rutland, A., & Cameron, L. (2003). The development of subjective group dynamics: Children's judgments of normative and deviant in-group and out-group individuals. *Child Development*, 74(6), 1840-1856. Retrieved from <http://0-www.jstor.org.wncln.wncln.org/stable/3696307>
- Baltazar, N. C., Shutts, K., & Kinzler, K. D. (2012). Children show heightened memory for threatening social actions. *Journal of Experimental Child Psychology*, 112(1), 102–10. doi:10.1016/j.jecp.2011.11.003
- Banerjee, R. (2002). Audience Effects on Self-Presentation in Childhood. *Social Development*, 11(4), 487–507. doi: 10.1111/1467-9507.00212
- Banerjee, R., Bennett, M., & Luke, N. (2010a). Children's reasoning about the self-presentational consequences of apologies and excuses following rule violations. *British Journal of Developmental Psychology*, 28(4), 799-815. doi: 10.1348/026151009X479475
- Banerjee, R., Bennett, M., & Luke, N. (2010b). Upsetting others and provoking ridicule: Children's reasoning about the self-presentational consequences of rule violation. *British Journal of Developmental Psychology*, 28(4), 941-947. doi: 10.1348/026151010X516796
- Banerjee, R., Bennett, M., & Luke, N. (2012). Children's reasoning about self-presentation following rule violations: The role of self-focused attention. *Child Development*, 83(5), 1805-1821. doi: 10.1111/j.1467-8624.2012.01813.x

- Bigler, R. S., Jones, L. C., & Lobliner, D. B. (1997). Social categorization and the formation of intergroup attitudes in children. *Child Development*, 68(3), 530-543. Retrieved from <http://0-www.jstor.org.wncln.wncln.org/stable/1131676>
- Boulton, M. J., & Smith, P. K. (1994). Bully/victim problems in middle school children: Stability, self-perceived competence, peer perceptions and peer acceptance. *British Journal of Developmental Psychology*, 12(3), 315-330. doi: 10.1111/j.2044-835X.1994.tb00637.x
- Chalik, L., Rivera, C., & Rhodes, M. (2014). Children's use of categories and mental states to predict social behavior. *Developmental Psychology*, 50(10), 2360-2367. doi:10.1037/a0037729
- Crandall, C. S. (1988). Social contagion of binge eating. *Journal of Personality and Social Psychology*, 55(4), 588-598. doi: 10.1037/a0037729
- Crick, N. R., Casas, J. F., & Mosher, M. (1997). Relational and overt aggression in preschool. *Developmental Psychology*, 33(4), 579-596. doi: 10.1037/0012-1649.33.4.579
- Darby, B. W., & Schlenker, B. R. (1982). Children's reactions to apologies. *Journal of Personality and Social Psychology*, 43(4), 742-753. doi: 10.1037/0022-3514.43.4.742
- Darby, B. W., & Schlenker, B. R. (1989). Children's reactions to transgressions: Effects of the actor's apology, reputation and remorse. *British Journal of Social Psychology*, 28(4), 353-364. doi: 10.1111/j.2044-8309.1989.tb00879.x
- Dishion, T. J., & Tipsord, J. M. (2011). Peer contagion in child and adolescent social and emotional development. *Annual Review of Psychology*, 62, 189-214. doi: 10.1146/annurev.psych.093008.100412

- Drell, M. B., & Jaswal, V. K. (2015). Making amends: Children's expectations about and responses to apologies. *Social Development*. doi: 10.1111/sode.12168
- Hamlin, J. K., Wynn, K., & Bloom, P. (2010). Three-month-olds show a negativity bias in their social evaluations. *Developmental Science*, 13(6), 923–929. doi: 10.1111/j.1467-7687.2010.00951.x
- Hanish, L. D., Martin, C. L., Fabes, R. A., Leonard, S., & Herzog, M. (2005). Exposure to externalizing peers in early childhood: Homophily and peer contagion processes. *Journal of Abnormal Child Psychology*, 33(3), 267–281. doi: 10.1007/s10802-005-3564-6
- Harris, P. L., Donnelly, K., Guz, G. R., & Pitt-Watson, R. (1986). Children's understanding of the distinction between real and apparent emotion. *Child Development*, 57(4), 895–909. doi: 10.1111/1467-8624.ep7250265
- Hoza, B. (2007). Peer functioning in children with ADHD. *Journal of Pediatric Psychology*, 32(6), 655–663. doi: 10.1093/jpepsy/jsm024
- Killen, M. (2007). Children's social and moral reasoning about exclusion. *Current Directions in Psychological Science*, 16(1), 32–36. doi: 10.1111.194.2703
- Killen, M., Breton, S., Ferguson, H., & Handler, K. (1994). Preschoolers' evaluations of teacher methods of intervention in social transgressions. *Merrill-Palmer Quarterly*, 40(3), 399–415. Retrieved from <http://0-www.jstor.org.wncln.wncln.org/stable/23087352>
- Kinzler, K. D. & Shutts, K. (2008). Memory for “mean” over “nice”: The influence of threat on children's face memory. *Cognition*, 107(2), 775–783. doi: 10.1016/j.cognition.2007.09.005

- Kondrad, R. & Jaswal, V. (2013). Breaking the rules: Young children's judgments of peers who misbehave. Published dissertation; in preparation.
- LeDoux, J. E. (2000). Emotion circuits in the brain. *Annual Review of Neuroscience*, 23, 155-184. doi: 10.1146/annurev.neuro.23.1.155
- LoBue, V., & DeLoache, J. S. (2010). Superior detection of threat-relevant stimuli in infancy. *Developmental Science*, 13(1), 221-228. doi: 10.1111/j.1467-7687.2009.00872.x
- McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, 14(1), 6-23. Retrieved from http://mc7290.bgsu.wikispaces.net/file/view/McMillan_1986.pdf
- Nucci, L. P., & Turiel, E. (1978). Social interactions and the development of social concepts in preschool children. *Child Development*, 400-407. doi: 10.2307/1128704
- Ohman, A., Lundqvist, D., & Esteves, F. (2001). The face in the crowd revisited: A threat advantage with schematic stimuli. *Journal of Personality and Social Psychology*, 80(3), 381-396. doi: 10.1037//0022-3514.80.3.381
- Pillow, B. H. (1989). Early understanding of perception as a source of knowledge. *Journal of Experimental Child Psychology*, 47(1), 116-129. Retrieved from <http://www.sciencedirect.com/science/article/pii/0022096589900660>
- Powlishta, K. K. (1995). Gender bias in children's perceptions of personality traits. *Sex Roles*, 32(1-2), 17-28. doi: 10.1007/BF01544755
- Schmidt, M. H., Rakoczy, H., & Tomasello, M. (2012). Young children enforce social norms selectively depending on the violator's group affiliation. *Cognition*, 124(3), 325-333. doi: 10.1016/j.cognition.2012.06.004

- Siegal, M., & Beattie, K. (1991). Where to look first for children's knowledge of false beliefs. *Cognition*, 38(1), 1-12. doi: 10.1016/0010-0277(91)90020-5
- Slaughter, V., Dennis, M. J., & Pritchard, M. (2002). Theory of mind and peer acceptance in preschool children. *British Journal of Developmental Psychology*, 20(4), 545-564.
- Retrieved from
http://www.researchgate.net/profile/Virginia_Slaughter/publication/227662946_Theory_of_mind_and_peer_acceptance_in_preschool_children/links/0c960521422eabd0f2000000.pdf
- Sloane, S., Baillargeon, R., & Premack, D. (2012). Do infants have a sense of fairness? *Psychological Science*, 0956797611422072. doi: 10.1177/0956797611422072
- Smetana, J. G. (1981). Preschool children's conceptions of moral and social rules. *Child Development*, 1333-1336. doi: 10.2307/1129527
- Smetana, J. G. (2006). Social-cognitive domain theory: Consistencies and variations in children's moral and social judgments. In M. Killen & J. G. Smetana (Eds.), *Handbook of moral development* (pp. 119-154). Mahwah, NJ: Erlbaum.
- Smetana, J. G., Kelly, M., & Twentyman, C. T. (1984). Abused, neglected, and nonmaltreated children's conceptions of moral and social-conventional transgressions. *Child Development*, 55(1), 277-287. doi: 10.2307/1129852
- Sullivan, K., Zaitchik, D., & Tager-Flusberg, H. (1994). Preschoolers can attribute second-order beliefs. *Developmental Psychology*, 30(3), 395-402. Retrieved from
http://www.researchgate.net/profile/Deborah_Zaitchik/publication/232554053_Preschoolers_can_attribute_second-order_beliefs/links/02e7e525ea3d98f8ff000000.pdf

- Tomlinson, D., von Baeyer, C. L., Stinson, J. N., & Sung, L. (2010). A systematic review of faces scales for the self-report of pain intensity in children. *Pediatrics*, *126*(5), 1168-1198. doi:10.1542/peds.2010-1609
- Watson, A. C., Nixon, C. L., Wilson, A., & Capage, L. (1999). Social interaction skills and theory of mind in young children. *Developmental Psychology*, *35*(2), 386-391. doi:10.1037/0012-1649.35.2.386
- Wellman, H. M., & Liu, D. (2004). Scaling of theory-of-mind tasks. *Child Development*, *75*(2), 523-541. doi: 10.1111/j.1467-8624.2004.00691.x

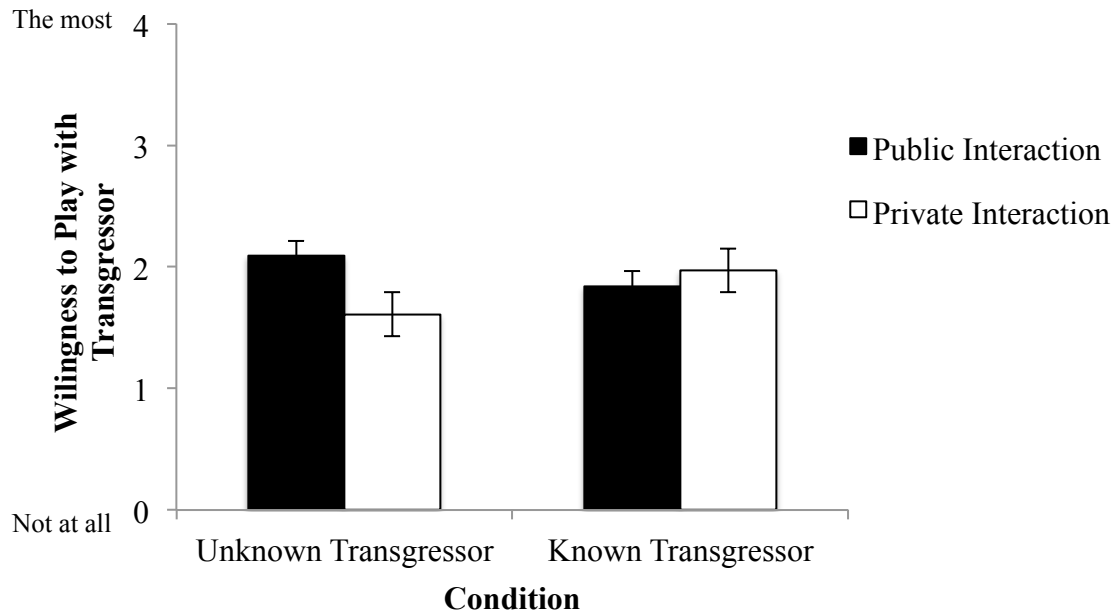
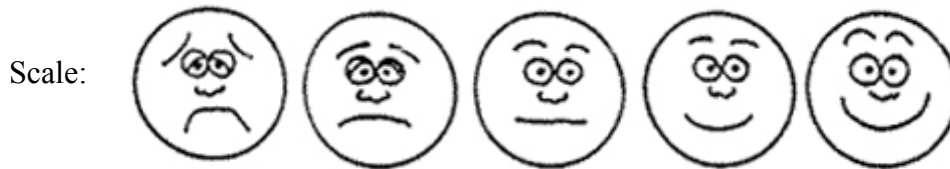


Figure 1. Whether or not others see them playing does not influence children's willingness to play with transgressors; this was true regardless of whether peers knew about the transgressors' history.

Appendix A

Sample Stories and Scale



Known Transgressor Condition with Public Interaction Question:



This boy hit someone and the teacher put him in time-out. All the other kids saw what happened.



This is the boy who hit someone. He is ready to play again. Now, imagine that all the other kids could see who you were playing with. How much do you want to play with this boy if all the other kids will know?

Unknown Transgressor Condition with Private Interaction Question:



This girl hit someone and the teacher put her in time-out. None of the other kids saw what happened.



This is the girl who kicked someone. She is ready to play again. Now imagine that none of the other kids could see who you were playing with. How much do you want to play with this girl if none of the other kids will know?

Appendix B

Theory of Mind Tasks (in order of least to greatest difficulty)

Knowledge Access (Pillow, 1989) modified:

EXPERIMENTER: Look, I have this container. Do you know what's inside the container?

Let's see what's in there! [open container and pull out object] Oh look, it's a sponge. [put object back in container; take out doll]

This is Jess. Jess has never ever seen inside this container.

Has Jess seen what's inside the container? (no)

Does Jess know what's inside the container? (no)

Content False Belief (Wellman & Liu, 2004):

[The child sees a clearly identifiable Band-Aid box with cereal inside the closed box.]

EXPERIMENTER: "Here's a Band-Aid box. What do you think is inside the Band-Aid box?"

[Next, the Band-Aid box is opened]: "Let's see ... it's really cereal inside!"

[The Band-Aid box is closed]: "Okay, what is in the Band- Aid box?" (cereal) *Children were corrected if they gave wrong answers to this question.*

[Then a toy figure is produced]: "This is Olli, and Olli has never ever seen inside this Band-Aid box. Now here comes Olli. So, what does Olli think is in the box? Band-Aids or cereal? (Band-Aids) "Did Olli see inside this box?" (no).

Explicit False Belief (Siegal & Beattie, 1991):

Jane/John wants to find her/his kitten. The kitten lives in two rooms: the garage and the kitchen. Jane/John thinks her/his kitten is in the kitchen. Jane/John's kitten is really in the garage. Where will Jane/John look first for her/his kitten? (kitchen) Where is it really? (garage)

Belief-Emotion (Wellman & Liu, 2004):

[Children see a toy figure named Izzy and a clearly identifiable individual-size Fruit Loops box with rocks inside the closed box.]

EXPERIMENTER: Here is a Fruit Loops box and here is Izzy. What do you think is inside the Fruit Loops box?" (Fruit Loops)

[Then the adult makes Izzy speak]: "Izzy says, 'Oh, good, because I love Fruit Loops. Fruit Loops are my favorite snack. Now I'll go play.'"

[Izzy is then put away and out of sight.]

[Next, the Fruit Loops box is opened and the contents are shown to the child]: "Let's see...there are really rocks inside and no Fruit Loops! There's nothing but rocks." [The Fruit Loops box is closed]: "Okay, what is Izzy's favorite snack?" (Fruit Loops) *Children were corrected if they gave wrong answers to this question.*

[Then Izzy comes back]: "Izzy has never ever seen inside this box. Now here comes Izzy. Izzy's back and it's snack time. Let's give Izzy this box. So, how does Izzy feel when s/he first gets this box? Happy or sad?" (happy)

[The adult opens the Fruit Loops box and lets the toy figure look inside]: “How does Izzy feel after s/he looks inside the box? Happy or sad?” (sad)

Real-Apparent Emotions (Harris, Donnelly, Guz, & Pitt-Watson, 1986):

Hide positive emotion: Diana/David is playing a game of cards. When s/he gets her/his cards, s/he sees that they are good ones so s/he might win. But s/he tries not to let the other children know what good cards s/he has.

Story comprehension: Do you remember what Diana/David is doing? (playing cards) Does s/he have good cards or bad cards? (good) And does s/he want the other children to know what good cards s/he has? (no) *Children were corrected if they gave wrong answers to any of these questions.*

Now I’m going to ask you about how Diana/David really felt inside and how s/he looked on her/his face. S/he might really feel one way inside but look a different way on her/his face.

Reality: How did Diana/David *really* feel on the inside when s/he was playing the game, happy, just ok, or sad (point to corresponding faces)? Ok, s/he felt [insert child’s choice]. Why did s/he really feel like that?

Appearance: How did Diana/David look on her/his face when s/he was playing the game? Did s/he look happy, just ok, or sad (point to corresponding faces)? Ok, s/he looked [insert child’s choice]. Why did s/he look like that?

Hide negative emotion: Diana/David wants to go to her/his friend's party tonight, but s/he has a tummy ache. S/he knows that if s/he tells her/his mom s/he has a tummy ache, she won't let her/him go. S/he tries to hide how s/he feels so that her/his mom will let her/him go.

Story comprehension: Do you remember what David/Diana wants to do? (go to party)
Does s/he feel sick? (yes) Does s/he want his/her mom to know that she feels sick? (no)

Children were corrected if they gave wrong answers to any of these questions.

Now I'm going to ask you about how Diana/David really felt inside and how s/he looked on her/his face. S/he might really feel one way inside but look a different way on her/his face.

Reality: How did Diana/David *really* feel when s/he had a tummy ache, happy, just ok, or sad (point to corresponding faces)? Ok, s/he felt [insert child's choice]. Why did s/he really feel like that?

Appearance: How did Diana/David look when s/he had a tummy ache? Did s/he look happy, just ok, or sad (point to corresponding faces)? Ok, s/he looked [insert child's choice]. Why did s/he look like that?

****Whether the reality or appearance question was asked first was counterbalanced.**

Second Order False Belief (Sullivan, Zaitchik, & Tager-Flusberg, 1994):

John and Mary are playing together in the park. They see the ice cream man coming. Mary really wants to buy an ice cream cone but she doesn't have any money. She feels sad. The ice cream man says to Mary: "Don't be sad, you can go home and get some money. I'll be here in the park all day long." So Mary goes home to get money to buy an ice cream cone. See, there goes Mary to her house to get some money. John stays in the park and plays.

Probe Question 1. "Why did Mary go home?" (to get money)

Probe Question 2. "What did the ice cream man tell Mary?" (he would be in park all day) Children were corrected if they gave wrong answers to either of these questions.

Now, John sees the ice cream cart start to move away. John asks, "Hey, where are you going?" The ice cream man says, "I'm going to the school to sell ice-cream. I can sell more ice-cream at the school." So the ice cream man starts driving to the school to sell ice cream there. See, there goes the ice cream man to the school.

Probe Question 3. "What did the ice cream man tell John?" (he's going to the school) Children were corrected if they gave wrong answers to this question.

Now, John goes off to his house to have some lunch. Mary is at her house getting money for ice cream. Mary walks outside her house and sees the ice cream man going by. "Hey, where are you going?" asks Mary. "I'm going to the school to sell ice cream," says the ice-cream man. Mary says, "Well, I'm so glad I know that. Now I have some money to buy an ice cream cone, so I will follow you to the school." The ice cream man and Mary go to the school. Remember the little boy John?

Probe Question 4. "Does John know the ice cream man went to the school?" (yes)

Linguistic control question. "Does John know that the ice cream man told Mary he was going to the school?" (no)

Nonlinguistic control question. "Does Mary know where the ice cream cart is?" (yes)

Children were corrected if they gave wrong answers to any of these questions.

Second-order ignorance question. "Does John know that Mary knows where the ice cream cart is?" (no)

Now, John has finished his lunch and he goes over to Mary's house to play with her. John knocks on the door. Mary's mother comes to the door. John asks her, "Where's Mary?" Mary's mother says, "Mary went to buy an ice cream cone." So John goes off to find Mary.

Memory aid: Now, remember, John does not know that the ice cream man told Mary where he was going.

Second-order false-belief question. "Where does John think Mary went to buy an ice-cream cone?" (the park)

Justification question. "Why?"

Appendix C

IRB Letter of Approval

**INSTITUTIONAL REVIEW BOARD**

Office of Research Protections

ASU Box 32068

Boone, NC 28608

828.262.2130

Web site: <http://www.orsp.appstate.edu/protections/irb>Email: irb@appstate.edu

Federalwide Assurance (FWA) #00001076

To: Shauna Joyner

EMAIL

From: Dr. Lisa Curtin, Institutional Review Board Chairperson**Date:** 4/18/2015**RE:** Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)**Study #:** 15-0263**Study Title:** Playing with Transgressors**Submission Type:** Initial**Expedited Category:** (6) Collection of Data from Recordings made for Research Purposes, (7) Research on Group Characteristics or Behavior, or Surveys, Interviews, etc.**Approval Date:** 4/18/2015**Expiration Date of Approval:** 4/16/2016

The Institutional Review Board (IRB) approved this study for the period indicated above. The IRB found that the research procedures meet the expedited category cited above. IRB approval is limited to the activities described in the IRB approved materials, and extends to the performance of the described activities in the sites identified in the IRB application. In accordance with this approval, IRB findings and approval conditions for the conduct of this research are listed below.

Regulatory and other findings:

The IRB determined that this study involves minimal risk to participants.

The IRB finds that more than minimal risk to minors is presented by an intervention or study procedure that holds out the prospect of direct benefit to the individual subject, or by a monitoring procedure that is likely to contribute to the subject's well-being, and that:

- a) the risk is justified by the anticipated benefit to the subjects;
- b) the relation of the anticipated benefit to the risk is at least as favorable to the subjects as that presented by available alternative approaches; and
- c) adequate provisions are made for soliciting the assent of the children and permission of their parents or guardians.

The IRB has determined that consent can be obtained from one parent or legal guardian (45 CFR 46.408).

Approval Conditions:

Appalachian State University Policies: All individuals engaged in research with human participants are responsible for compliance with the University policies and procedures, and IRB determinations.

Principal Investigator Responsibilities: The PI should review the IRB's list of PI responsibilities. The Principal Investigator (PI), or Faculty Advisor if the PI is a student, is ultimately responsible for ensuring the protection of research participants; conducting sound ethical research that complies with federal regulations, University policy and procedures; and maintaining study records.

Modifications and Addendums: IRB approval must be sought and obtained for any proposed modification or addendum (e.g., a change in procedure, personnel, study location, study instruments) to the IRB approved protocol, and informed consent form before changes may be implemented, unless changes are necessary to eliminate apparent immediate hazards to participants. Changes to eliminate apparent immediate hazards must be reported promptly to the IRB.

Approval Expiration and Continuing Review: The PI is responsible for requesting continuing review in a timely manner and receiving continuing approval for the duration of the research with human participants. Lapses in approval should be avoided to protect the welfare of enrolled participants. If approval expires, all research activities with human participants must cease.

Prompt Reporting of Events: Unanticipated Problems involving risks to participants or others; serious or continuing noncompliance with IRB requirements and determinations; and suspension or termination of IRB approval by an external entity, must be promptly reported to the IRB.

Closing a study: When research procedures with human subjects are completed, please complete the Request for Closure of IRB review form and send it to irb@appstate.edu.

Websites:

1. PI responsibilities:

<http://researchprotections.appstate.edu/sites/researchprotections.appstate.edu/files/PI%20Responsibilities.pdf> 2. IRB forms: <http://researchprotections.appstate.edu/human-subjects/irb-forms>

CC: Robyn Kondrad, Psychology Zachary Morgan

Appendix D

Consent Form

Parent/Legal Guardian Consent for Child to Participate in Research *Information to Consider About this Research*

Title of Research: Playing with Transgressors

Principal Investigator: Shauna Joyner (ASU); Dr. Robyn Kondrad (ASU)

Department: Psychology

Contact Information:

Shauna Joyner: agelabs@appstate.edu; 828-262-6978

Dr. Robyn Kondrad: agelabs@appstate.edu; 828-262-6978

What is the purpose of this research? You and your child are invited to participate in a research study that investigates how children interact with peers who misbehave. By conducting this study, we hope to learn more about how social norms influence children's decision to play or not play with these peers. The study involves children listening to stories and answering questions about the characters. The results of this study will be presented at research conferences, displayed on the Age Labs' website, and published in scholarly journal articles.

Why am I being invited to take part in this research? Your child is invited to participate because he or she is the right age for the questions we are interested in studying. If you give permission for your child to participate, your child will be one of about 50 children to do so.

What will I be asked to do? The research procedures will be conducted in a quiet space either at your child's school or daycare facility at a time designated by the teacher or in our research space at Appalachian State University. The time required for your child's participation is one 30- to 45-minute session. The session will be videotaped so the research team can have an accurate record of your child's responses. If you agree to allow your child to participate, your child will be asked if s/he would like to listen to some stories with the researcher. If your child verbally agrees, they will hear several stories in which a character misbehaves (e.g., a character pinches another child) and will be asked several questions about the story (e.g., "How much would you like to play with this character?"). If your child completes the study in our lab (Charleston Forge) then they will receive a small thank-you gift (e.g., ball, T-shirt) at the end of the study. Children completing the study in preschools will be thanked and escorted back to the classroom.

What are possible harms or discomforts that I might experience during the research?

To the best of our knowledge, there are no risks associated with participating in this research study. The researcher will ensure that your child is comfortable during the study. You will also be able to sit with your child during the study if you both wish to do so (if you are participating in our lab at Charleston Forge). Children may request that their teacher sit with them if participating at preschool. Children generally enjoy interacting with us in our research.

What are possible benefits of this research? There may be no personal benefit from your or your child's participation but the information gained by doing this research may help others in the future. This research should help us learn more about how children's understanding of social norms influences their decisions to play with peers.

Will I be paid for taking part in the research? We will not pay you for the time you volunteer your child to be in this study, however your child (if you allow it) will receive a small toy if they participate in our research space at Appalachian State University. It will not cost you, your child, or (if applicable) your child's preschool/daycare anything to participate.

How will you keep my private information confidential? The information that your child provides in the study will be kept confidential. Your and your child's information will be combined with information from other children taking part in the study when we share it with other researchers. You and your child will not be identified in any published or presented materials. Identification codes but not names will be used on all documents. Your files will be stored in the investigator's office under lock and key. Identifiable information will be destroyed once we are no longer working with it. Videotapes will be digitally archived and password-protected, and will be viewed only by trained research assistants unless you have given explicit permission for other uses on the video release form attached.

Whom can I contact if I have a question? The people conducting this study will be available to answer any questions concerning this research, now or in the future. You may contact Shauna Joyner, the Principal Investigator or her faculty advisor, Dr. Robyn Kondrad, at 828-262-6978. If you have questions about your rights as someone taking part in research, contact the Appalachian Institutional Review Board Administrator at 828-262-2692, through email at irb@appstate.edu or at Appalachian State University, Office of Research and Sponsored Programs, IRB Administrator, Boone, NC 28608.

Do I have to participate? You and your child's participation in this study are voluntary. You and/or your child have the right to stop the study and/or withdraw from it at any time without penalty. If you or your child chooses to withdraw from the study, all data from your child's session will be destroyed. If at any point you or your child want to stop participating or to withdraw from the study, simply tell the researcher and the session will be ended immediately.

This research project has been approved on April 18, 2015 by the Institutional Review Board (IRB) at Appalachian State University. This approval will expire on April 18, 2016 unless the IRB renews the approval of this research.

Parent/Legal Guardian Consent for Child to Participate in Research

Information to Consider About this Research

Title of Research: Playing with Transgressors

Principal Investigators: Shauna Joyner (ASU; agelabs@appstate.edu; 828-262-6978)

Faculty Advisor: Dr. Robyn Kondrad (ASU; agelabs@appstate.edu; 828-262-6978)

I have decided I want to take part in this research. What should I do now? If you have read this form, had the opportunity to ask questions about the research and received satisfactory answers, and want to participate with your child, then sign the consent form below and return it to the researcher or your child's teacher (if applicable). You may keep a copy of the consent agreement for your records.

Video Authorization: With your permission, video recordings taken during the study may be used in research presentations of the findings of the study, or for a variety of other reasons listed below. Your child's name would not be associated with any of these uses. If at any time in the future you change your mind about what you selected below, simply notify us by contacting Shauna Joyner or Robyn Kondrad (828-262-6978; agelabs@appstate.edu) and we will stop using it (except in the case of already published books or journals). Please review the authorization below, indicate whether you **do** (Yes) or **do not** (No) agree to the video recordings being used in each of the ways indicated below, and then sign your name and date at the bottom.

I hereby release discharge, and agree to save harmless Appalachian State University, its successors, assigns, officers, employees or agents, any person(s) or corporations (s) for whom it might be acting, and any firm publishing and/or distributing any photograph or video footage produced as part of this research, in whole or in part, as a finished product from and against any liability as a result of any distortion, blurring, alteration, visual or auditory illusion, or use in composite form, either intentionally or otherwise, that may occur or be produced in the recording, processing, reproduction, publication or distribution of any photograph, videotape, or interview, even should the same subject me to ridicule, scandal, reproach, scorn or indignity. I hereby agree that the photographs and video footage may be used under the conditions stated herein without blurring my identifying characteristics.

Professional presentations of the findings (e.g., conferences)	Yes	No
In presentations to psychology classes at Appalachian State	Yes	No
In presentations at workshops or other recruiting events	Yes	No
On the AGE Labs website at Appalachian State	Yes	No
On the AGE Labs Facebook page	Yes	No
On scholarly websites (e.g., Dept. of Psychology at ASU)	Yes	No
In news reports of this research	Yes	No
On display in the AGE Labs or the Dept. of Psychology at ASU	Yes	No

Child's Name (Print)	Birthdate (MM/DD/YY)	
Parent or Legal Guardian Name (Print)	Signature	Date